



Brake Cleaner Resource Sheet

What is Wrong with Aerosol Cans?

When compared to refillable spray bottles and aqueous brake washing, they are expensive and have greater environmental and employee health consequences.

Cost Savings

- Ounce for ounce, spray on product sold in aerosol cans is about *twice* the cost of bulk product. You pay for propellants in every aerosol can (10 to 15 percent by weight).
- You also pay for excess packaging and disposable cans.
- To use bulk products, you make an initial investment in refillable air-powered cans (about \$30 - \$80 per can), but you pay much less for the cleaners. Shops report **actual savings of \$300 to \$2000 per year** by using bulk cleaners.

Refillable Spray Bottles

There are two basic types of refillable spray bottles: metal bottles that spray product using compressed air and plastic bottles that use a hand pump.

- Metal bottles are filled with product (for example brake cleaner or carburetor cleaner) from a bulk container and are pressurized with a compressed-air hose.
- Plastic bottles are also filled from a bulk container, but are operated by pumping a trigger to create a mist or stream of product.

What to consider when purchasing a refillable spray bottle:

- **Capacity.** The capacity of typical refillable spray bottles varies from 7 fluid ounces to 1 quart. Depending on your needs, smaller bottles can be more convenient for hard to reach places. Where as larger bottles can be more convenient because they need to be refilled less frequently.
- **Construction material.** You need to ask your vendor which bottle type is compatible with the type of product you intend to use in it.
- **Nozzle type.** 1-quart refillable spray bottles usually come with standard spray and stream nozzles. Smaller spray bottles come with a nozzle that sprays in a similar stream to an aerosol can. You can also purchase nozzle extensions up to 12 inches long for spraying hard to reach areas.
- **Cost:** Refillable air-pressurized bottles cost from \$30-\$80 per can. Chemically resistant plastic bottles and hand pumps cost \$1 to \$6 each.

| Refillable Spray Bottles: Commonly Perceived Problems and Real Answers | |
|---|---|
| Perceived Problem | Real Answer |
| 1) Refillable spray bottles require more labor time because they must be refilled | The actual time needed to fill a bottle is between 1 and 3 minutes, comparable to the time of disposing of a can and obtaining a new one. |
| 2) Refillable spray bottles are cumbersome | Spray bottles the size of a typical aerosol can also be purchased, or nozzle extensions can be attached to larger bottles. |
| 3) Refillable spray nozzles clog | Although clogs are rare, blowing compressed air through both sides of the spray nozzle can eliminate them. |

Aqueous Brake Washing

The best environmental practice for brake washing is to use aqueous brake washing units, which eliminates the use of both aerosol cans and solvents (used in both aerosol cans and solvent brake washing units). These brake washing units involve a water based, portable reservoir for brake cleaning. Many shop owners have found that the portable brake cleaning units both save time and money. They have adjustable heights, and are available from numerous vendors.

Aqueous brake washing solutions contain compounds that are either non-hazardous or considerably less hazardous than solvents. With proper filtration and regular addition of fresh solution, many shops can go for years without requiring solution disposal. In addition, even if one does not buy a portable brake washing unit, many aqueous parts washing units can also perform brake washing (check with individual vendors)



Avoid potential regulatory problems by using compressed air to dry brakes after aqueous brake washing rather than an aerosol brake cleaner. Many aerosol products contain F-listed chemicals. An F-listed chemical is a chemical that makes each waste it contaminates a hazardous waste, no matter what its concentration in the waste is.

Partners for a Clean Environment (PACE) Certification Requirement

To become a certified partner in the PACE program, businesses are required to eliminate or reduce usage of aerosols and chlorinated compounds a minimum of 50% and to purchase products in bulk when possible. The table below lists brake cleaning products that can help meet this requirement. *The PACE program in no way endorses any of the companies, nor regards this as a complete list of brake cleaner manufacturers.*

| Manufacturer | Phone number | Types of Products |
|--------------|----------------|--|
| Safety-Kleen | (303) 761-8614 | Sell a portable unit; the SK Multi-Level Parts Cleaner which uses their non-toxic, non-flammable aqueous solvent. |
| Würth | (800) 346-4198 | Produces a non-hazardous Brakes & Parts Cleaner for use in their ASharp Shooter [®] product, a stainless steel, hand-held, air-powered can that can be refilled. Würth Brake & Parts Cleaner does not contain any solvents which are A-listed [®] under the hazardous waste regulations. Cost savings by purchasing bulk rather than aerosol cans by the case are at least \$2.50 per gallon. |
| Zep | (303) 373-1371 | Produces a non-chlorinated, non-aerosol brake cleaner which removes grease, asbestos and dust. Zep also produces an air-powered stainless steel canister for use with this cleaning product. Cost savings by purchasing in bulk rather than individual cans are over \$24 per gallon. Also make the Zep Adjustable Brake Buggy II, a portable brake cleaning unit. |
| Kleen Tec | (800) 435-5336 | Sells a portable brake washing unit for \$550. Unit can also be used as a parts washer. |
| Misty | (970) 224-4740 | Distribute bulk, non-chlorinated brake and parts cleaner as well as choke and carb cleaner. Also sell a 16-ounce refillable air-powered canister for about \$30. Cost savings by purchasing in bulk rather than aerosol cans are at least \$2.50 per gallon. |
| CRC | (800) 521-3168 | Produces a non-chlorinated, non-aerosol brake cleaner which can be purchased in bulk. This brake cleaner does not contain any solvents which are listed under the hazardous waste regulations. The CRC brake cleaner must be used in an air-powered canister which can be purchased in various sizes from most auto supply shops for a cost of \$40 and \$80 depending on type and size. |